

**To:** Heather.Ptak@shell.com[Heather.Ptak@shell.com]  
**From:** Seyfried, Erin  
**Sent:** Thur 8/1/2013 6:27:32 PM  
**Subject:** Geotech Questions

Hi Heather – Here are the questions I had for geotech (just wanting to clarify a few things). We can schedule a time to talk about this later, or feel free to just respond via email if that is easier/ more convenient.

- 1) In the NPDES permit application (Form 2C) the desalination unit wastes are listed as having a mean daily flow of 10,320 m<sup>3</sup>/day (which happens to be the same flow provided for non-contact cooling water). Is this correct? Or is this a typo? This rate is significantly greater than the rate provided for exploration well desal discharges.
- 2) In the NPDES permit application (Form 2C), a rate of 7,000 gpd is provided for muds/cuttings (at the seafloor), however, when I was looking over estimated volumes of muds/cuttings (Table 2 of the “AOGA Response” to our May 2013 questionnaire), the numbers don’t seem to correlate. What am I missing? Does the estimated discharge rate include entrained seawater?
- 3) The NPDES permit application does not request coverage for “boiler blowdown”, but this is still included in the AOGA response document. I just wanted to confirm that this is not a requested discharge.
- 4) Based on the Geotech Presentation last week (7/25 – and thanks, again, for putting that on, very helpful!), Cary stated that the possible 2014 Geotech Program would include 30 boreholes in the Chukchi and 7 boreholes in the Beaufort. I was wondering, how many of these holes are likely to be “deep” holes, and how many are “shallow.” For purposes of distinguishing shallow vs. deep holes, is it okay to state that shallow is <50 feet in depth, and deep is >50 feet in depth?

Thank you!

-Erin

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